UK Agri-Tech Centre

The UK Agri-Tech Centre

Facilitating the Development and Adoption of Innovative Solutions on Farm

Dr Andy Evans – Innovation Lead

ARIOB – Academic Advisory Panel

agritechcentre.com

UKRI Innovate UK

The UK Agri-Tech Centre

Who we are

- The merger of three UK agri-tech centres — Agri-EPI, CIEL, and CHAP — officially created the UK Agri-Tech Centre in April 2024
- An independent business, supported by Innovate UK
- Enable businesses to develop their innovations to be technically and commercially robust, and work with farmers and growers to increase adoption of emerging agri-tech
- Create an enabling innovation ecosystem for agri-tech sector growth in the UK by addressing critical challenges that prevent new innovations getting to

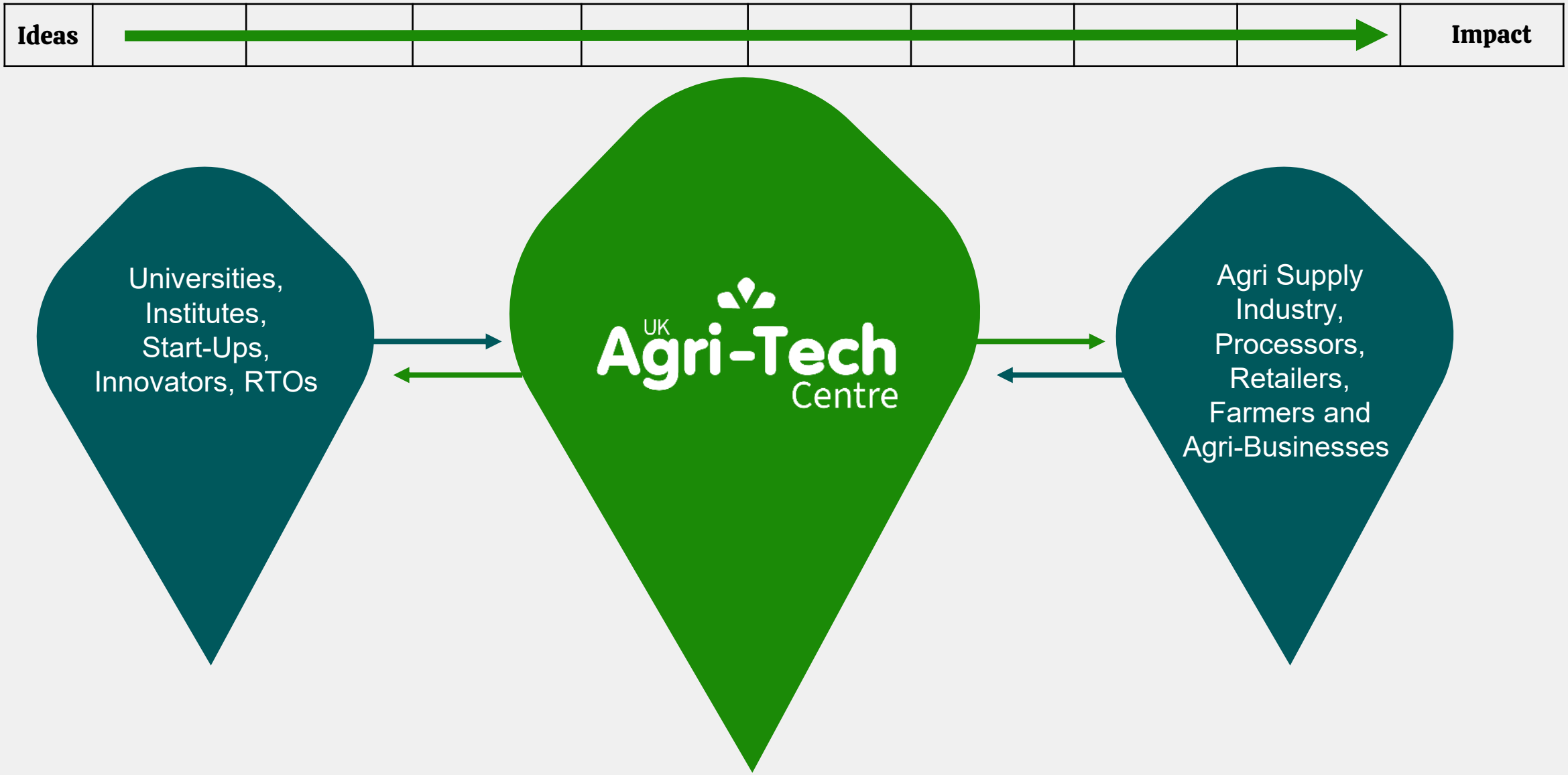
Mission

To accelerate the development and deployment of innovation across agri-tech

Vision

An agricultural sector that is among the world's most innovative, dynamic, resilient and sustainable through the development and application of agri-tech

Bridging the Gap

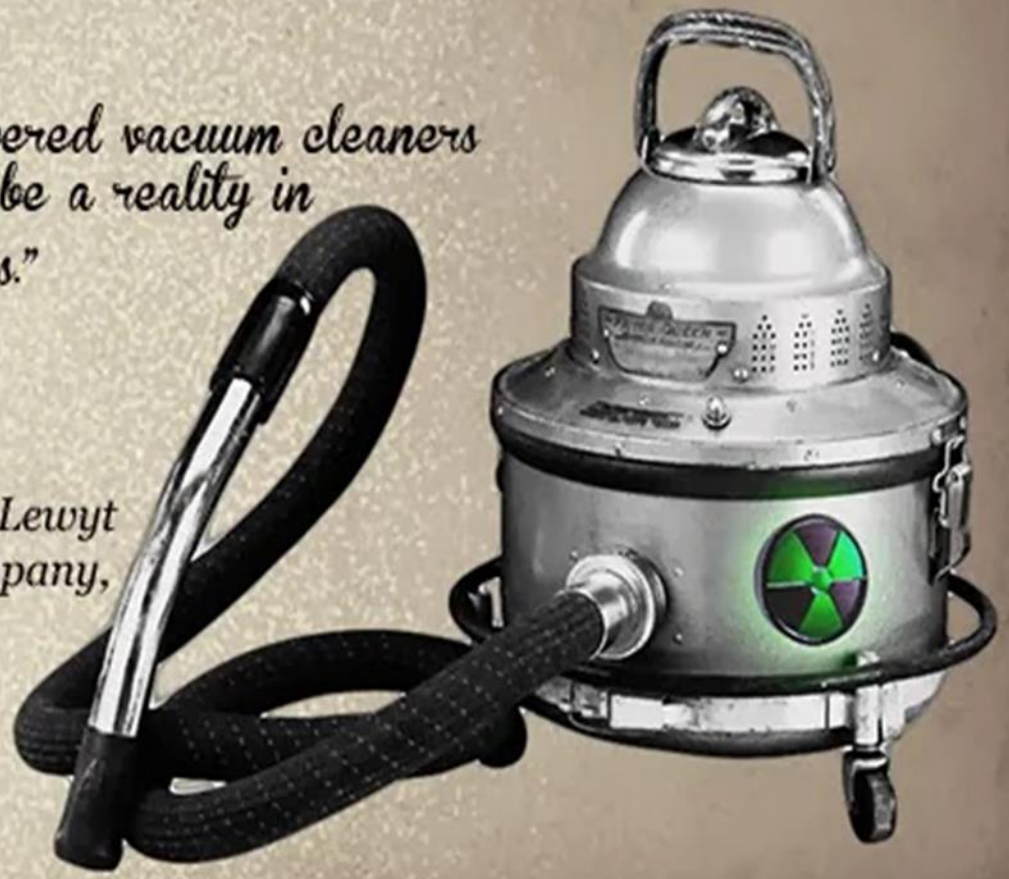


We might have passed on this innovation.....

Vacuum Cleaner of Future To Be Atomic, Self-Operated

"Nuclear-powered vacuum cleaners will probably be a reality in 10 years."

Alex Lewyt
President of Lewyt vacuum company,
1955



What we do

- **Test, trial and demonstrate:** increase the successful development and adoption rate of emerging agri-tech by farmers to improve agricultural productivity, profitability and sustainability

- **Sector growth:** create an enabling innovation ecosystem for agri-tech sector growth in the UK by addressing critical challenges that prevent new innovations getting to market

- **Agri-tech business support:** enable UK agri-tech SMEs to access the skills, expertise and capabilities needed to successfully deliver solutions through to commercialisation

The UK Agri-Tech Centre

Providing expertise and world-class facilities to businesses, driving agri-tech development and growth

Unique in agri-tech

Expertise: 150 in-house agri-tech experts

Ecosystem: collaborating with over 470 businesses from SMEs to global corporations

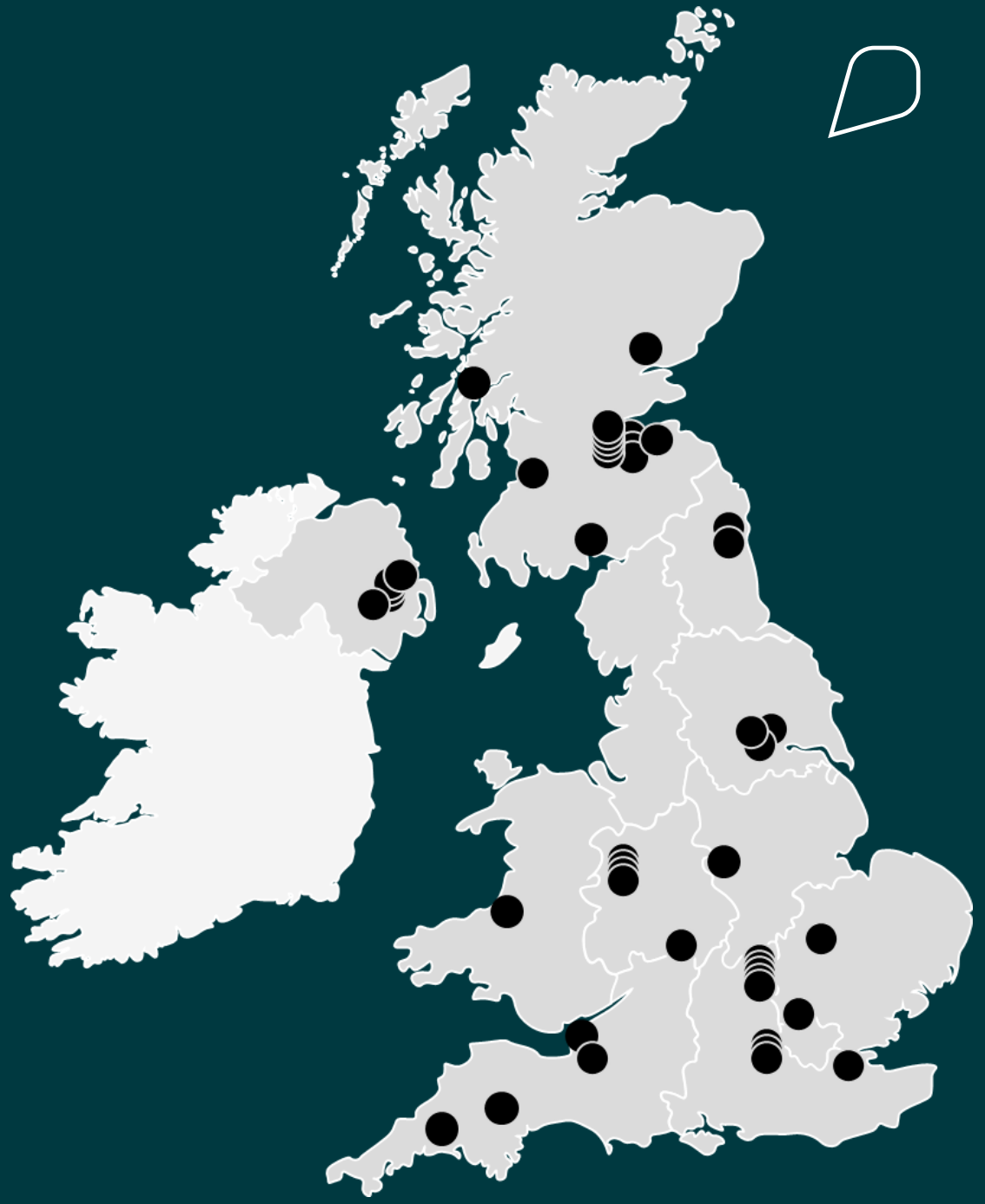
Experience: working with industry to deliver over £85m of agri-innovation projects

Capabilities and resources

43
innovation facilities

22
strong farm network

Geographic & sector coverage



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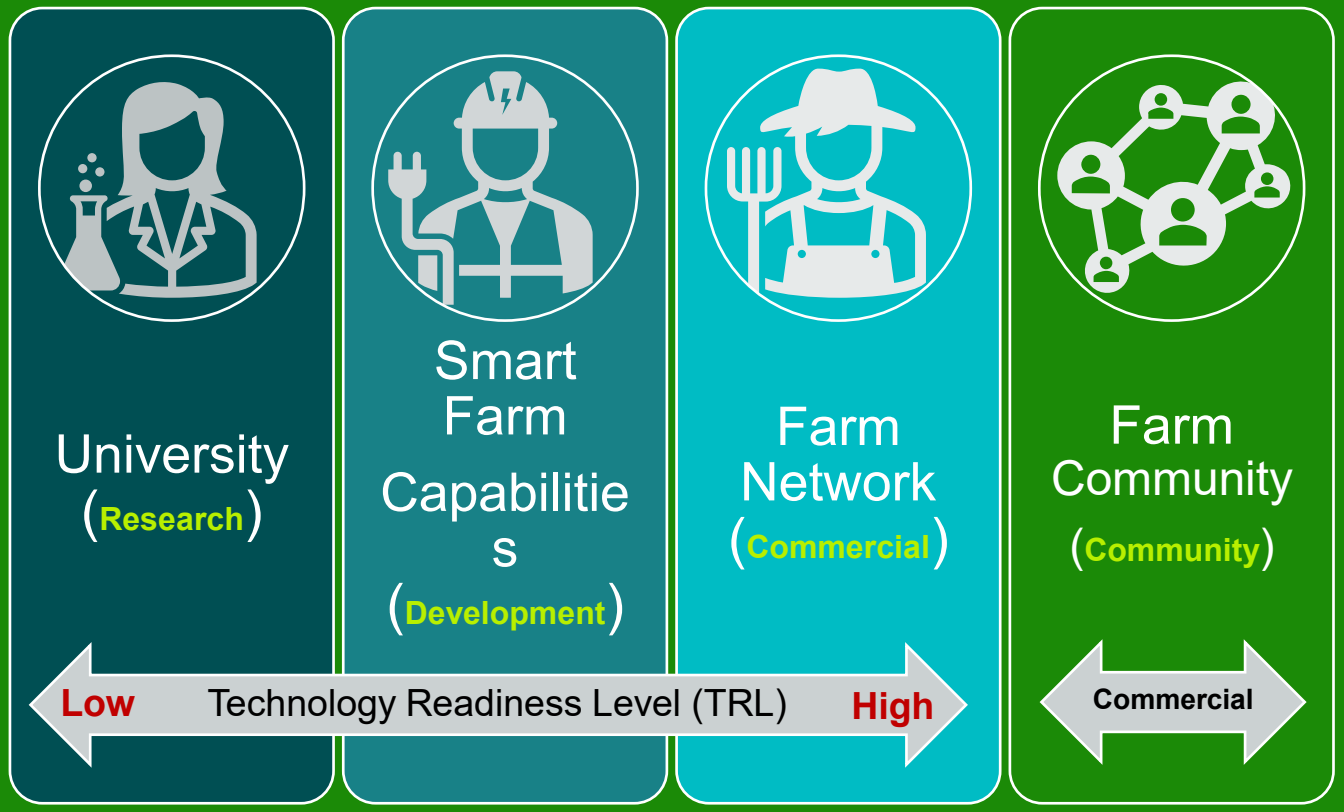

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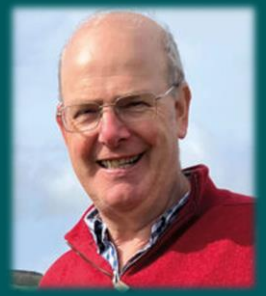
Scottish Farm Network

David Smurthwaite, Mackie's Dairy, Old Meldrum

Gregor Bruce, Logierieve, Ellon

angus SOFT FRUITS

Angus Soft Fruits, East Seaton, Arbroath



John Seed, Woodend, Duns

John Weir, Lacesston, Cupar

Robert Neill, Upper Nisbet, Jedburgh

Brian Weatherup Jnr, Parkend, Cowdenbeath

Sion Williams, Bowhill Farming, Selkirk

Niall Jeffrey, Bielgrange, Dunbar

Agri-Tech Centres

Healthy Heifer Project

SMARTBELL

CASE STUDY: MACKIE'S

- **Reduced disease incidence 35%**
- **Decreased antibiotic use 20%**
- **2 years' treatment records digitalised**

David Smurthwaite
Dairy Manager
Mackie's of Scotland

> I was originally cynical about the use of the data, but now we look at the app 2 or 3 times a day. Our antibiotic usage has gone down and the calves turn around much quicker.

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WELLCALF by Smartbell

SRUC

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Hoofcount

Case study

Background

Dairy farming faces a significant challenge in managing hoof health, particularly with the prevalence of lameness caused by digital dermatitis. This condition affects over 90% of dairy herds in the UK, leading to substantial economic losses. While preventative measures like regular footbathing have been in place, early detection and timely treatment of lameness remain critical needs in the industry.

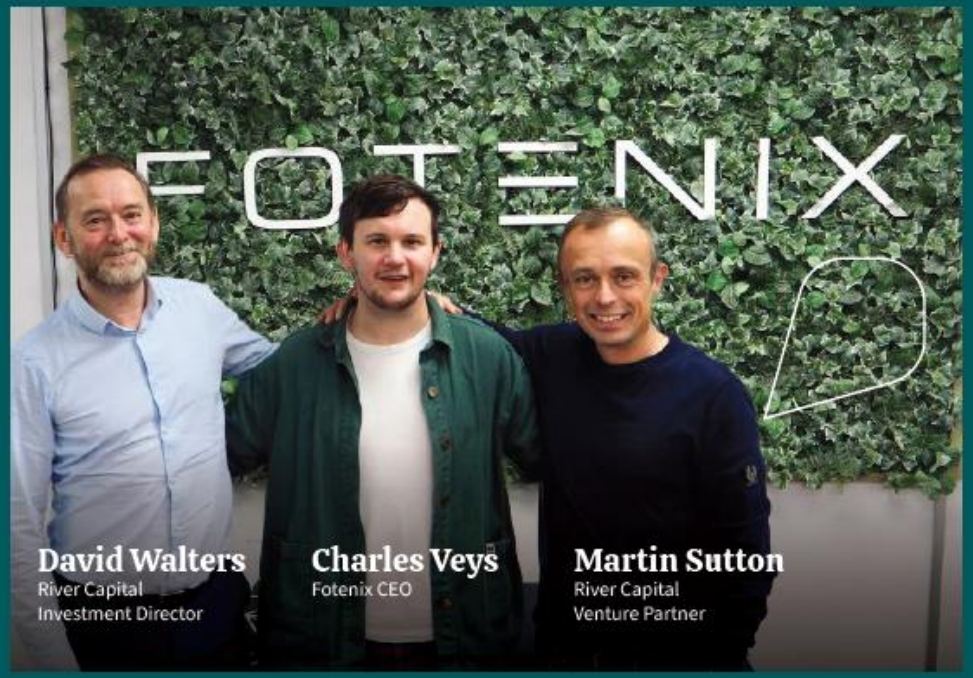
Hoofcount, a leading UK provider of automatic footbaths, recognised the need for a more proactive approach to hoof health. Their existing systems were already making strides in reducing lameness, but the company identified an opportunity to develop a device that could detect issues at an even earlier stage, ensuring prompt and effective treatment.

Collaboration and Support

The development of Pedivue was a collaborative effort that brought together expertise from various sectors. Hoofcount worked closely with the UK Agri-Tech Centre at the South West Dairy Development Centre and the Centre for Machine Vision (CMV) at the University of the West of England, Bristol. This partnership was crucial in developing and refining the system and ensuring accurate and reliable hoof health assessments.

Hoofcount's Anthony Marsh explains: "Utilising the dairy centre and the resources at the UK Agri-Tech Centre has provided an excellent controlled centre for further development of the device with validated data capture.

"The UK Agri-Tech Centre guided us through the initial application and have supported us throughout the project keeping timings and communication all on target."



Fotenix

Case study

Background

Fotenix is an agri-tech innovator based in Manchester, UK, specialising in multispectral imaging and AI-driven solutions for crop monitoring.

Founded as a University of Manchester spinout, Fotenix's technology supports growers with precision tools to reduce their reliance on chemical inputs, such as fertilisers and pesticides, contributing to improved sustainability. By making data-driven decisions, farmers can also improve water and energy efficiency, critical for maintaining profitability.

"Farmers are at the core of everything we do. We understand the immense pressure they face to deliver high-quality produce while dealing with rising costs and environmental challenges." - Charles Veys, CEO of Fotenix

Collaboration and support

Fotenix has collaborated with the UK Agri-Tech Centre and partners across many active and complete projects:

- SprayBot - Three-year feasibility study funded by Innovate UK that investigated combining early disease detection techniques such as imaging and spore sensors with robotic machinery.
- SLIMERS - Strategies Leading to Improved Management and Enhanced Resilience Against Slugs (SLIMERS) is research project funded by Defra's Farming Innovation Programme and delivered by Innovate UK.
- ACDC - The Advanced Crop Dynamic Control project aims to develop highly energy efficient & sustainable indoor farming systems through image-based analysis, AI & software.

Outfield Technologies

Case study

Outfield background and story

Outfield is a Cambridge-based agri-tech startup helping fruit growers to become more efficient, profitable and sustainable. The Outfield system is designed to provide farmers with accurate and reliable fruit counts, blossom mapping and yield estimates. This is critical for making informed decisions around resource management, harvest, storage and sales. The system uses a combination of drone technology and cutting-edge machine learning to collect and analyse data that can help growers see how their orchards or vineyards are performing. The Outfield team has been working with apple growers around the world to develop their system since 2019, and have now delivered over 1000 reports to growers to help optimise blossom thinning, precision fertiliser applications and harvest logistics.

Agri-Tech Centre Collaboration

Outfield is collaborating with UK Agri-Tech Centre on the £1 million Innovate UK supported VISTA project. This is a project to create a digital mapping system for vineyard and fruit growers around the world. The VISTA map will capture the locations of plants and rows, mapping out field infrastructure such as posts and irrigation systems. VISTA will create a standard format for easy data sharing and integration, allowing growers to combine different precision farming systems together to improve production outputs. Digital mapping empowers informed decision making in horticulture and VISTA will create a standard for digital maps of commercial vineyards and orchards in the UK and across the globe.

Agribot

Case study

Background

Grass growth is crucial for pasture-based dairy farming, affecting herd nutrition, milk production, and farm efficiency. Traditional methods, like manual plate measurements or visual checks, are time-consuming and inconsistent. However, satellite data offers near real-time, objective insights into grass biomass, growth rates, and stress indicators, enabling farmers to optimise grazing rotations and avoid overgrazing or underusing feed.

By using two- to three-week grass growth forecasts, dairy farmers can adjust grazing strategies proactively, supplement feed when needed, and ensure cows have high-quality pasture. Combining satellite data with atmospheric forecasts helps farmers anticipate feed surpluses or shortages, balancing stocking rates and feed budgets to reduce reliance on costly supplementary feed.

Additionally, satellite monitoring improves pasture management, removing unnecessary use of synthetic fertilisers and pesticides. By optimising grazing and ensuring grass stays in its productive phase, nitrogen use can be reduced without sacrificing yield. Healthier pastures also enhance soil carbon storage and water retention, promoting long-term farm sustainability. Ultimately, satellite data enables farmers to increase efficiency, maximise profit, and boost environmental resilience.

Collaboration and support

"Our journey in grass growth monitoring and forecasting has been dramatically accelerated by the incredible support and collaboration we've received from key industry and research partners. The UK Agri-Tech Centre has been instrumental in our progress, working alongside us in a partnership with Innovate UK to bring cutting-edge solutions to pasture-based dairy farming.

Through this collaboration, we engaged directly with farmers as part of the initial project and later as adopters after attending our dissemination events. Their insights and on-the-ground feedback have been invaluable in refining and validating our technology.

Who should you work with to deliver Innovation and break down barriers to Adoption?

Ventures, SMEs

Academic Science and Research

Investors & Funding Agencies

Government

International

Associations, Societies & Trade bodies

Agri-Supply Industry

Processors & Retailers

Farmers and Agri-Business

Catapult Network

Delivering Innovation and Impact

52 companies incubated at/using our hubs

85 SMEs engaged through R&D and commercial projects

302 businesses engaged through **UKATC activities**

152 businesses using **UKATC capabilities, Farm Network** used in **31 projects**

~£5 Million in **CR&D matched funding** for projects with UKATC

~£12 Million in **private funding secured** by businesses working with UKATC

Prioritising projects that are closer to market

Dedicated to key industry challenges

Focusing on novel and transformational agri-tech

Assessing product potential and market feasibility

Thank you

Contact the UK Agri-Tech Centre at

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UK Agri-Tech Centre

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